Strengthening capacities of local governments in rural Nepal in climate risk-informed WASH service provision

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Key Messages

1. Climate-risk informed, inclusive planning and investments for WASH **integrated in existing government processes**, contributes to long-term institutional strengthening for climate-resilient WASH. **(Governance)**
2. Upgrading and construction of **high quality, accessible infrastructure + mitigation measures for wider sub-catchment** contributes to resilience of water supply infrastructure and accessibility for all. **(Construction)**
3. Strengthening climate-resilient **integration in Water Safety Planning tool** contributes to resilience in services of water supply systems. **(Services)**
4. Understanding **impacts of climate hazards on behaviours** helps develop strategies to address these challenges and support consistency in behavior change. (**Behaviour Change)**
5. **Women entrepreneurs providing local services** can have a critical role in sustaining supply chains during extreme climate events. **(Supply Chain)**

SNV's approach to Climate Resilient Rural WASH (CRRWASH)

Background

Findings today are shared based on learnings from Project: "Towards Climate Resilient Inclusive Water Supply Services in Rural Nepal“.

- Funded by the Department of Foreign Affairs and Trade (DFAT) through the Australian Government's Water for Women Fund (WfW).

- 2 Rural Municipalities each, in 2 districts: Hills; and Plains (terai)
- Timeline: 2023 – 2024 (building on Phase 1 on “Inclusive and Sustainable Rural Water Supply Services, Nepal’, 2018 – 2022).
- **Partners International**:
  - International Water Management Institute (IWMI),
  - Institute for Sustainable Futures (UTS-ISF),
  - CBM Australia
- Partners Local:
  - Dailekh district- Everest Club
  - Sarlahi district- Rural Women Upliftment Association (RWUA)

Background

- Nepal is highly vulnerable to climate change.
- Climate projections, by end of century:
  - Increase in average annual temperature, across all seasons,
    - Dailekh: 1.9 – 3.4 degree Celsius
    - Sarlahi: 2.4 – 4.4 Degree Celsius
  - Increase in average annual rainfall, with decrease in winter months
    - Dailekh: 7.2 – 22.2%
    - Sarlahi: 13.3 – 27%
- More than two-thirds of the area of the 4 Rural Municipalities are susceptible to more than one hazard (considering flooding, landsliding, and wildfires) → will become worse in future climate scenarios

Key Message 1: Governance

Climate-risk informed, inclusive planning and investments for WASH **integrated in existing government processes**, contributes to long-term institutional strengthening for climate-resilient WASH.

Dungeshwor Rural Municipality | Online Map - Nwash

https://nwash2.softwel.com.np/Dashboard/MunIndex?munCode=60610

YouTube | Maps | Try Google Input To... | Jobs | ReliefWeb | Free Citation Gener... | PubMed | Bitwarden Web Vault | Topics | ResearchGate | Paraphrasing Tool |...

NWASH

Dungeshwor Rural Municipality
Municipality Admin

- Home
- National Data Profile
- Map
- Sustainability Tools
- Download App
- Inventory Assessment
- WaSH Plan
- Water Quality
- Municipal Input
- Projects

User Management

- User Registration
- Change Password
- Log Out

Dungeshwor Rural Municipality, Office of Municipal Executive
Dailekh
Karnali Province, Nepal

Dungeshwor Rural Municipality

2023-

Training Happening?
Training Site

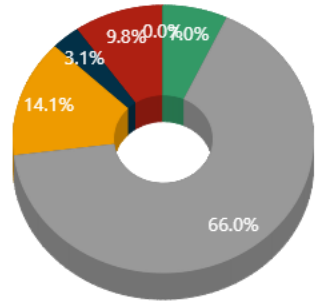
Municipal Data Collection Status

Water Supply System	Population Coverage	Household Coverage	Taps
80	16,762	2,654	2,201

Household Sanitation	Health Care	Community Sanitation
356	7	0

Unserved Community	Public Toilet	School
Proposed: 68 Ongoing: 3	Proposed: 5 Existing: 3	32

Tap Flow Condition



Water Flow Condition | Population | Percentage

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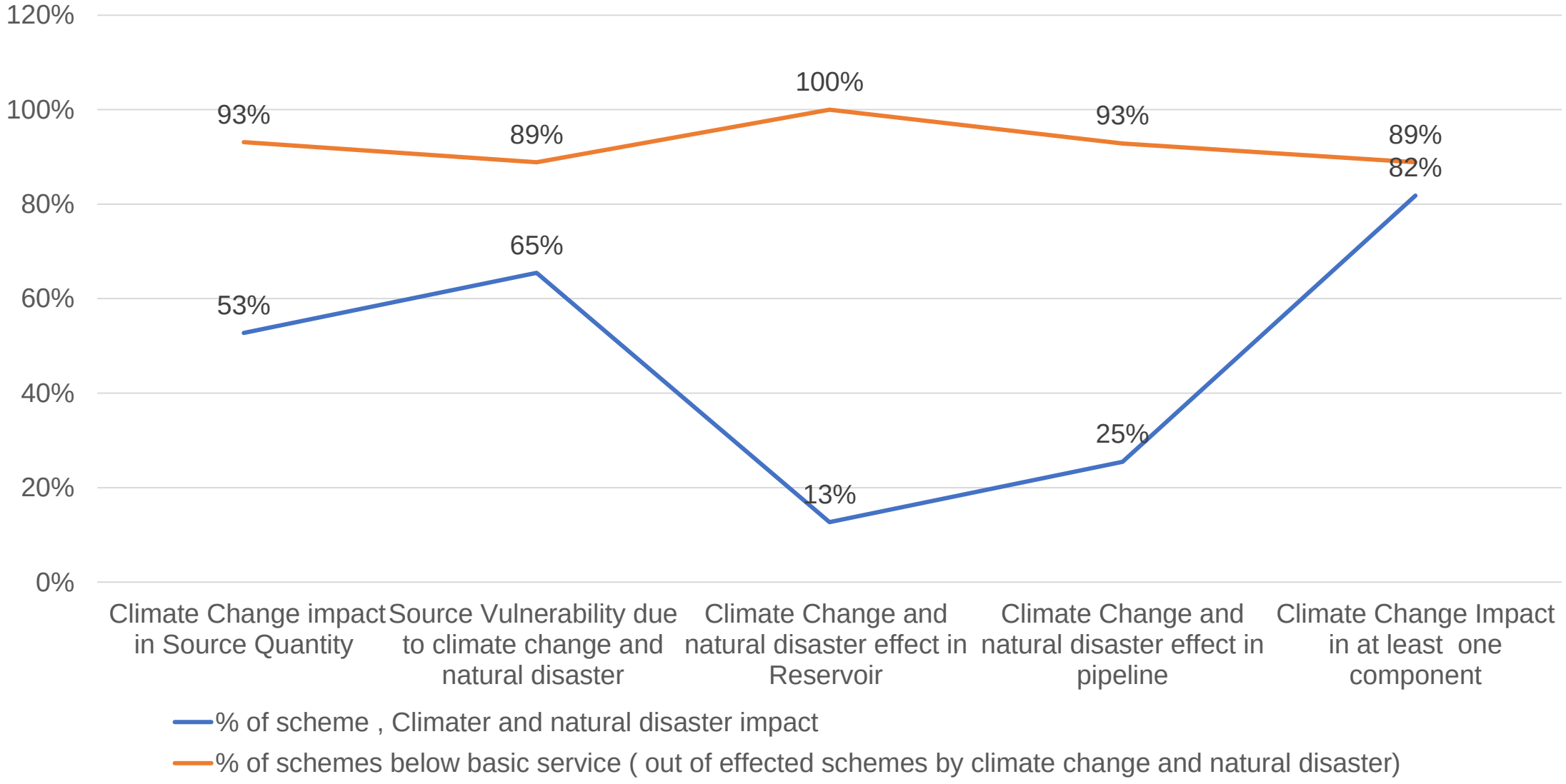
Data collected by RM on National WASH MIS:

Climate and natural disaster effect in rural water supply service level in Dailekh (Hill) Nepal



Data from NWASH-MIS used for prioritization of water supply infrastructure investment: RM WASH Plan

- Unserved area (people accessing water from open sources)
- Dalit households
- Water supply scheme Level of Service with calculation based on data parameters for quality, quantity, accessibility and reliability ➔ first priority is to achieve basic level of service for all people
- Risks from climate hazards (earlier slide)
- Condition of existing structures such as pipe laying condition, intake condition, reservoir condition (structures in poorer condition were of higher priority).

Dungeshwor RM	Priority for Investment				
	Very High	High	Medium	Low	Total
No. of existing WS schemes	15	20	14	31	80
No. of new WS schemes	17	17	13	21	68

Key Message 2: Construction

Upgrading and construction of **high quality, accessible infrastructure + mitigation measures for wider sub-catchment** contributes to resilience of water supply infrastructure and accessibility for all.

Participatory climate risk assessment of WS system and sub-catchment level

Ensuring quality upgrading/construction

Construction of water supply storage tank and accessible tap for deep tubewells installed (2023) in drought hit Sarlahi district

Mitigation through bio-engineering at wider sub-catchment level

Key Message 3: Services

Strengthening climate-resilient **integration in Water Safety Planning tool** contributes to resilience in services of water supply systems.

	Basic CR aspects in WSP	Additional aspects strengthening climate resilience in WSP
Team Formation	• WSP Team Formation (Inclusive team)	• Include external stakeholders (e.g. representatives from RM's DRR committee, RM technical staff etc.), advisory committee
System Analysis	• Source-to-tap	• Demarcation of sub-catchment area,
Hazard and Risk Identification	• Identification of hazards potentially impacting on WS system • Analysis of existing risks from hazards	• Identification of hazards beyond the water source to the wider sub-catchment area • Analysis of existing and potential risks from hazards (e.g. planned road construction causes landsliding during extreme rainfall)
Mitigation	• Control measures focus solely on community plantation. • Promote water conservation and multiple use of water by HHs. • Small lumpsum budgets for control measures	• Control measures aim at resilience of services from multiple aspects: i) HH coping mechanisms in disruptions (extreme climate events) ii) Water Service Providers linked to RM disaster preparedness and emergency response plan iii) Plantation beyond water source to sub-catchment - with dedicated budget • Address potential impact on surrounding environment (e.g. leaking pipes increase risk of landslide)

CR-WSP Committee meeting

Training of Village Maintenance Worker – implement CR-WSP

Key Message 4: Behaviour Change

Understanding **impacts of climate hazards on behaviours** helps develop strategies to address these challenges and support consistency in behavior change.

Formative research on how behaviours (such as treatment of drinking water quality) are impacted by climate risks (e.g. during period of drought or floods), help design campaigns to address these risks (work currently in progress)

Key Message 5: Supply Chain

Women entrepreneurs providing local services can have a critical role in sustaining supply chains during extreme climate events.

- 35 women entrepreneurs trained in identifying potential business opportunities in response to climate risks
- 27 expanded their businesses from hygiene products to supplying materials for maintaining handpumps (in Sarlahi) and water filters for water treatment (in Dailekh).

➔Ensure that water systems can be repaired readily during climate events, and water is available.

➔In the drought emergency in Sarlahi, they supplied bottled water to households where women have difficulties in leaving the house.

Thank You.

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